

SABIC Innovative Plastics Noryl FXN119LG PPE+HIPS (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polystyrene (PS)

Material Notes:

Noryl FXN119LG is a low gloss PPE/HIPS grade. It provides a balance of mechanical properties and heat performance with intrinsic low gloss appearance. FXN119LG is available in multiple colors. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Noryl-FXN119LG-PPEHIPS-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.06 g/cc	1.06 g/cc	ASTM D 792
Density	1.06 g/cc	0.0383 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.060 %	0.060 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.23 % @Temperature 23.0 °C	0.23 % @Temperature 73.4 °F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	12 g/10 min @Load 5.00 kg, Temperature 280 °C	12 g/10 min @Load 11.0 lb, Temperature 536 °F	[cm ³ /10 min] Melt Volume Rate; ISO 1133
	13 g/10 min @Load 5.00 kg, Temperature 280 °C	13 g/10 min @Load 11.0 lb, Temperature 536 °F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	116	116	ISO 2039-2
Hardness, H358/30	95.0 MPa	13800 psi	ISO 2039-1
Tensile Strength at Break	48.0 MPa	6960 psi	50 mm/min; ISO 527
	49.0 MPa	7110 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	51.0 MPa	7400 psi	50 mm/min; ISO 527
	53.0 MPa	7690 psi	Type I, 50 mm/min; ASTM D 638
Elongation at Break	40 %	40 %	Type I, 50 mm/min; ASTM D 638
	40 %	40 %	50 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments, ISO 527
	5.1 %	5.1 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.20 GPa	319 ksi	1 mm/min; ISO 527
	2.40 GPa	348 ksi	5 mm/min; ASTM D 638
Flexural Yield Strength	77.0 MPa	11200 psi	2 mm/min; ISO 178
	85.0 MPa	12300 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.20 GPa	319 ksi	1.3 mm/min, 50 mm span; ASTM D 790
	2.20 GPa	319 ksi	2 mm/min; ISO 178
Izod Impact, Notched	1.10 J/cm @Temperature -30.0 °C	2.06 ft-lb/in @Temperature -22.0 °F	ASTM D 256
	1.60 J/cm @Temperature 23.0 °C	3.00 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Notched (ISO)	7.00 kJ/m ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
	11.0 kJ/m ² @Temperature 23.0 °C	5.23 ft-lb/in ² @Temperature 73.4 °F	80*10*4; ISO 180/1A
Charpy Impact, Notched	0.700 J/cm ² @Temperature -30.0 °C	3.33 ft-lb/in ² @Temperature -22.0 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.40 J/cm ² @Temperature 23.0 °C	6.66 ft-lb/in ² @Temperature 73.4 °F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	42.0 J @Temperature 23.0 °C	31.0 ft-lb @Temperature 73.4 °F	Instrumented Impact Total Energy; ASTM D 3763
Taber Abrasion, mg/1000 Cycles	75 @Load 1.00 kg	75 @Load 2.20 lb	CS-17; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	92.0 µm/m-°C @Temperature -40.0 - 40.0 °C	51.1 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	92.0 µm/m-°C	51.1 µin/in-°F	ISO 11359-2

Thermal Properties	Metric	English	Comments
CTE, linear, Transverse to Flow	95.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	52.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM E 831
	@Temperature -40.0 - 40.0 $^{\circ}\text{C}$	@Temperature -40.0 - 104 $^{\circ}\text{F}$	
	95.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	52.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-2
	@Temperature -40.0 - 40.0 $^{\circ}\text{C}$	@Temperature -40.0 - 104 $^{\circ}\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	130 $^{\circ}\text{C}$	266 $^{\circ}\text{F}$	Flatw 80*10*4 sp=64mm; ISO 75/Bf
Deflection Temperature at 1.8 MPa (264 psi)	114 $^{\circ}\text{C}$	237 $^{\circ}\text{F}$	Flatw 80*10*4 sp=64mm; ISO 75/Af
	114 $^{\circ}\text{C}$	237 $^{\circ}\text{F}$	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	135 $^{\circ}\text{C}$	275 $^{\circ}\text{F}$	Rate B/50; ISO 306
	136 $^{\circ}\text{C}$	277 $^{\circ}\text{F}$	Rate B/50; ASTM D 1525
	137 $^{\circ}\text{C}$	279 $^{\circ}\text{F}$	Rate B/120; ISO 306
Flammability, UL94	HB	HB	UL 94 by SABIC-IP
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Glow Wire Test	750 $^{\circ}\text{C}$	1380 $^{\circ}\text{F}$	Glow Wire Flammability Index; IEC 60695-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Optical Properties	Metric	English	Comments
Gloss	20 %	20 %	untextured, 60 degrees; ASTM D 523

Descriptive Properties	Value	Comments
Ball Pressure Test, 125 $^{\circ}\text{C}$ +/- 2 $^{\circ}\text{C}$	Passes	IEC 60695-10-2

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